

ABSTRACT

The frequency characteristic of a conversion loss is kept generally constant during conversion of a high frequency received signal into an intermediate frequency signal. There is provided a frequency converter including a balanced balun (10) which branches a locally oscillated signal (Lo) into two signals which have the same amplitude and are different from each other in phase by 180 degrees, low-pass filters (12a, 12b) through which the two signals pass, and antiparallel diode pairs (16a, 16b) which respectively mix outputs from the low-pass filters (12a, 12b) with a high frequency received signal (RF) to produce an intermediate frequency signal (IF). The low-pass filters (12a, 12b) exhibit generally constant impedances in the frequency band of the high frequency received signal (RF). Accordingly, the impedances of the anti-parallel diode pairs (16a, 16b) as viewed from an anti-parallel diode connection point (17) are generally constant in the frequency band of the high frequency received signal (RF), with the result that the frequency characteristic of the conversion loss can be kept generally constant.